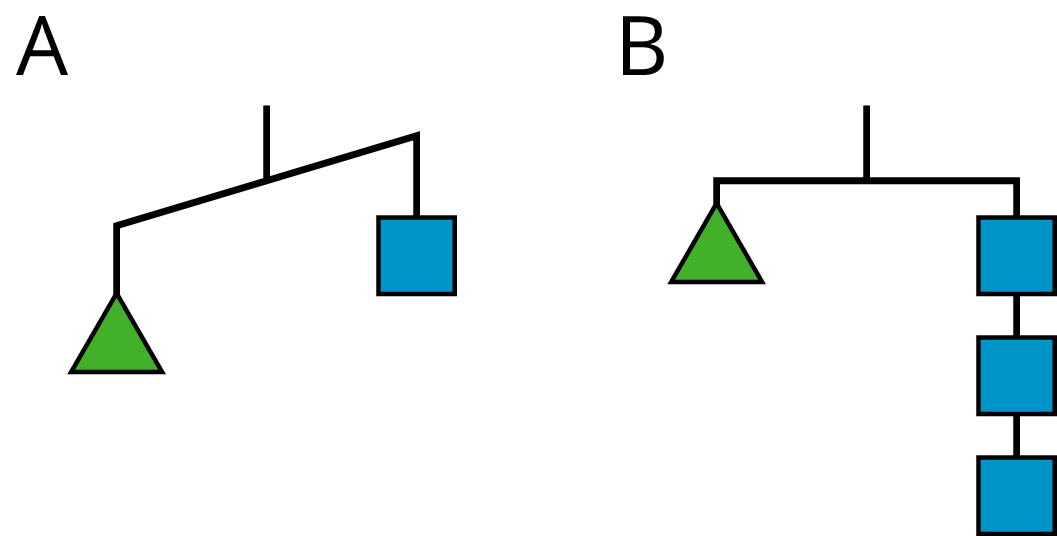
## Unit 6, Lesson 3: Staying in Balance

Let's use balanced hangers to help us solve equations.

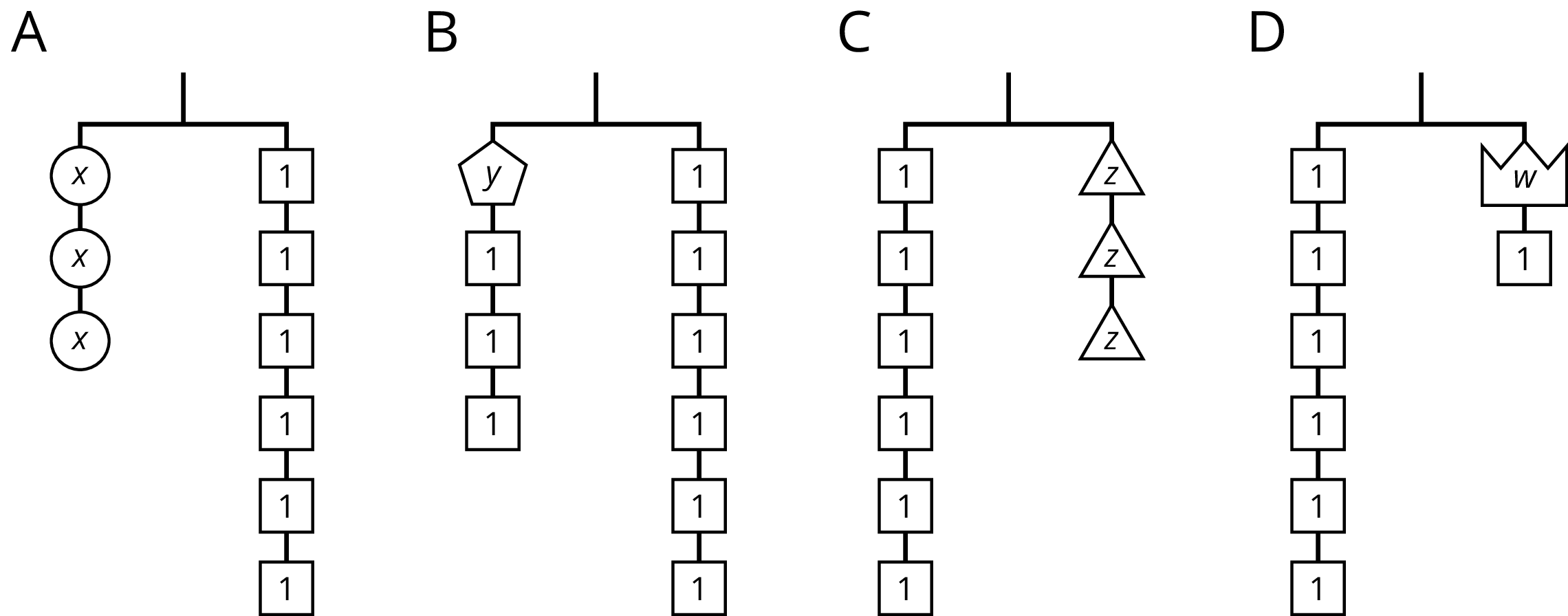
### 3.1: Hanging Around

1. For diagram A, find:
   1. One thing that *must* be true
   2. One thing that *could* be true or false
   3. One thing that *cannot possibly* be true



1. For diagram B, find:
   1. One thing that *must* be true
   2. One thing that *could* be true or false
   3. One thing that *cannot possibly* be true

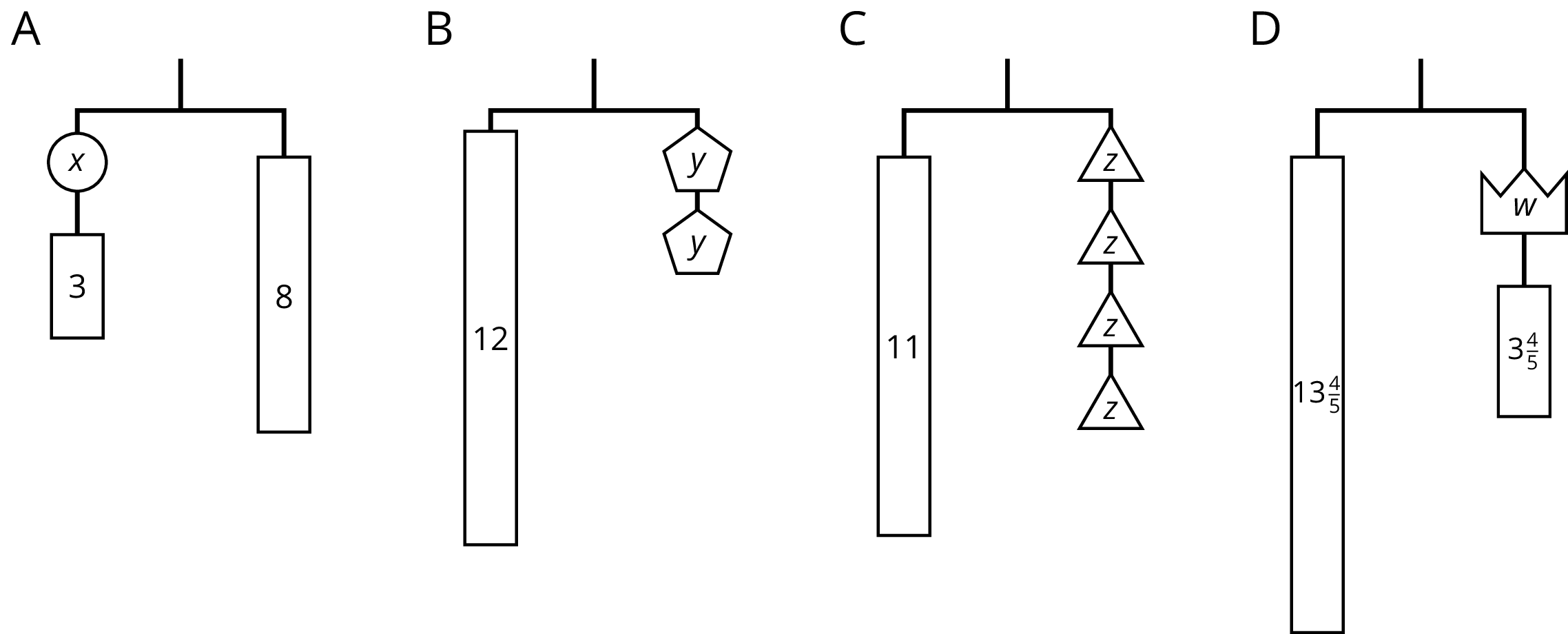
### 3.2: Match Equations and Hangers



1. Match each hanger to an equation. Complete the equation by writing , , , or in the empty box.
2. ​​ Find a solution to each equation. Use the hangers to explain what each solution means.

### 3.3: Connecting Diagrams to Equations and Solutions

Here are some balanced hangers. Each piece is labeled with its weight.



For each diagram:

1. Write an equation.
2. Explain how to reason with the diagram to find the weight of a piece with a letter.
3. Explain how to reason with the equation to find the weight of a piece with a letter.

|  |  |  |  |
| --- | --- | --- | --- |
| **Diagram** | **Equation** | **Reasoning** | **Solution** |
| A |  |  |  |
| B |  |  |  |
| C |  |  |  |
| D |  |  |  |